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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,100	12/02/2003	Francesco Di Salvo	DI SALVO	9233

7590 08/08/2005  
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EXAMINER

VRETTAKOS, PETER J

ART UNIT	PAPER NUMBER
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3739

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/726,100	<b>Applicant(s)</b> SALVO, FRANCESCO DI	
	<b>Examiner</b> Peter J. Vrettakos	<b>Art Unit</b> 3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12-2-03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

**Claims 1-19 are cancelled. A preliminary amendment dated 7-19-05 was entered.**

#### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 20-25 and 30-47, drawn to a medical device, classified in class 606, subclass 41.
- II. Claims 26-29, drawn to a process of making an alloy, classified in class 148, subclass 96.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Ursula Day on 7-19-05 a provisional election was made without traverse to prosecute the invention of Group I, claims 20-25 and 30-37. Affirmation of this election must be made by applicant in replying to this Office action. Claims 26-29 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 35 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 35 recites the limitation "the p-type germanium" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 20, 23-25, 30-32 and 36-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Schmid (4,375,219).

Schmid discloses a silver germanium alloy electrode (see preferred compositions for the medical electrodes atop column 7). Silicon is also mentioned (col. 7:24).

Dependent claims (parentheticals refer to Schmid).

23. The instrument of claim 20, wherein medical instruments include devices selected from the group of prostheses and implants of suitable shape and size. (The office contends that Schmid electrodes are capable of implantation.)

24. The instrument of claim 20, capable of emitting far infrared radiation upon contact with a biological tissue and which is capable of entering into molecular resonance vibration with bio structure and physical structures of so irradiated biological tissue.

25. The instrument of claim 20, capable of creating an ohmic contact in an electrode-tissue interface (the electrodes attach to skin) during electrosurgical operative modes.

31. The instrument of claim 20, wherein the germanium content is less than 14.4% by weight. See col. 7, example I.

32. The instrument of claim 31. wherein the germanium content is at least 0.01% by weight. See col. 7, example I.

36. The instrument of claim 20, wherein the non-hydrogenic and the hydrogenic acceptor dopants are selected from the group consisting at least one of gold, platinum, copper (see col. 7:4-5), gallium, indium, zinc, boron and their alloys.

37. The instrument of claim 36, wherein the non-hydrogenic acceptor dopant is at least one of gold and copper (see col. 7:4-5).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 33-34, 38-40, 43-45, 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmid.**

Schmid neglects to expressly disclose parameters and dimensions (for alloy weight ratios, hardness and conductivity), however the Applicant's claimed parameters and dimensions would have been obvious as a result of routine experimentation with the Schmid electrode. The motivation to perform the experimentation would be to

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determine optimal parameters and dimensions (which are presumably claimed by the Applicant).

Note: Re: 43, 45. Schmid's *structurally equivalent* electrode makes obvious an alloy capable of emitting anions, as well as resistance to corrosion.

**Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmid in view of Robichaud (3,752,151).**

Schmid neglects to disclose laminate.

In an analogous electrode, Robichaud discloses laminate (see title). Therefore it would have been obvious at the time of the invention to modify Schmid in view of Robichaud by including laminate as a design expedient. The motivation would be to use a well-known means (laminate) to package a silver alloy for use as an electrode.

**Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmid in view of Ueda et al. (3,816,293).**

Schmid neglects to disclose fusion.

In an analogous electrode, Ueda et al. discloses fusion (col. 4:1-5). Therefore it would have been obvious at the time of the invention to modify Schmid in view of Ueda by including fusion as a production method. The motivation would be to use a well-known production method ("conventional").

**Claims 35 and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmid in view of Kiyama et al. (4,668,840).**

Schmid neglects to disclose microcrystals.

In an analogous electrode, Kiyama et al. discloses microcrystals (col. 1:24-30) in the claimed context. Therefore it would have been obvious at the time of the invention to modify Schmid in view of Kiyama by including microcrystals as a design expedient. The motivation would be to use a well-known alloy configuration to permit its effective use as an electrode.

Note Schmid discloses energy emitting electrodes obviously capable of emitting RF and thermal energy (by definition of electrode).

**Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmid in view of Popp et al. (5,822,177).**

Schmid neglects to disclose fractal surfaces.

In an analogous electrode, Kiyama et al. discloses fractal surfaces (see title) in the claimed context. Therefore it would have been obvious at the time of the invention to modify Schmid in view of Popp by including fractal surfaces as a design expedient. The motivation would be to use a well-known alloy configuration to permit its effective use as an electrode.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J. Vrettakos whose telephone number is 571-272-4775. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C. Dvorak can be reached on 571-272-4764. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pete Vrettakos  
August 2, 2005



  
ROY D. GIBSON  
PRIMARY EXAMINER